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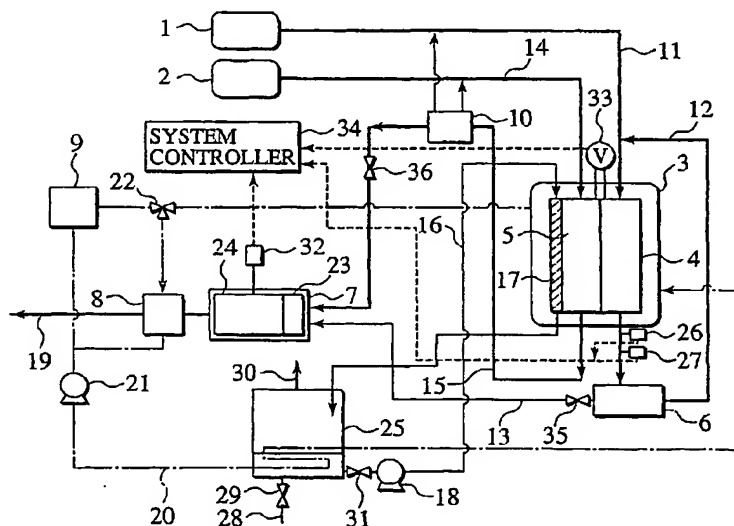
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- (71) Applicant (for all designated States except US): **NISSAN MOTOR CO., LTD. [JP/JP]; 2, Takara-cho, Kanagawa-ku, Yokohama-shi, Kanagawa 221-0023 (JP).**
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- (54) Title: FUEL CELL SYSTEM AND FUEL CELL OPERATING METHOD



- (57) **Abstract:** A fuel cell system and related method are disclosed having a catalytic combustor 7 combusting mixed gas between fuel gas, or anode off-gas, and oxidant gas or cathode off-gas, and a system controller 35 operative to perform control such that during at least an ignition period until the catalytic combustor is discriminated to be sufficiently activated from commencement of supplying the mixed gas to the catalytic combustor, a fuel gas concentration of the mixed gas is maintained in a given range (greater than a catalyst activation lower limit and less than flammable lean-limit) whereas after the ignition period has been elapsed, the mixed gas is supplied to the catalytic combustor even if the fuel gas concentration lying at a value deviated from the given range.

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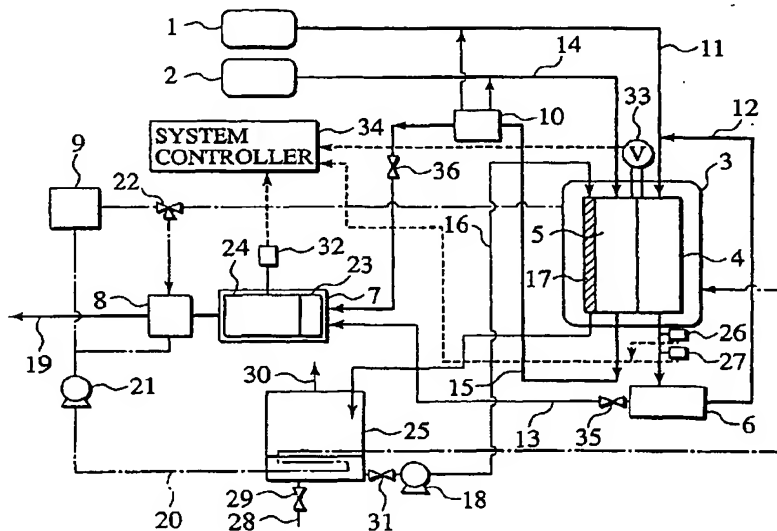
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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H01M8/04 H01M8/06 H01M8/04				
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 H01M				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	US 2001/014414 A1 (OSHIAGE KATSUNORI ET AL) 16 August 2001 (2001-08-16) paragraphs '0024!', '0025!', '0032!' - '0034!', '0039! figure 1	1-14		
X	EP 1 248 312 A (NISSAN MOTOR) 9 October 2002 (2002-10-09) figures 1,12,15 paragraphs '0038!', '0042!', '0047!', '0054!	1-14		
X	US 2002/094469 A1 (YANAGIHARA KAZUNORI ET AL) 18 July 2002 (2002-07-18) figure 7	1-14		
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.				
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A document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *Z* document member of the same patent family			
Date of the actual completion of the international search <div style="text-align: center;">13 December 2004</div>	Date of mailing of the international search report <div style="text-align: center;">22/12/2004</div>			
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer <div style="text-align: center;">Jacquinot, P</div>			

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	<p>WO 2004/045004 A (OBATA TAKEAKI ; MATOBA TADASHI (JP); NISSAN MOTOR (JP)) 27 May 2004 (2004-05-27) figures 1-19 page 8, lines 9-19</p> <p>-----</p>	1-14

INTERNATIONAL SEARCH REPORT

Information on patent family members

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